

The East Asian industrial policy: a critical analysis of the developmental state

Polityka przemysłowa państw Azji Wschodniej: analiza krytyczna *developmental state*

Streszczenie

Współcześnie, gdy zdyskredytowana doktryna neoliberalna przestała pełnić funkcję dominującego wzorca polityki ekonomicznej oraz modelu systemowego, być może nadszedł moment wielkiego powrotu polityki przemysłowej, rozumianej jako interwencje państwa mające za cel stymulowanie rozwoju. W II połowie XX w. to właśnie polityka przemysłowa prowadzona w państwach Azji Wschodniej przyniosła najbardziej spektakularny rozwój. W literaturze przedmiotu sukces ten – zwany wschodnioazjatyckim cudem – wyjaśniany jest na gruncie koncepcji *developmental state* (państwa rozwojowego, czy też prorozwojowego).

W niniejszym artykule Autor omawia główne kierunki polityki przemysłowej państw Azji Wschodniej. Stawia też pytanie, czy takie podejście może być stosowane współcześnie. Wymaga to wyjaśnienia, dlaczego polityka przemysłowa zyskuje na popularności. Następnie Autor omawia dzieje powstania pojęcia państwa rozwojowego, aby przejść do analizy najważniejszych jego elementów, tj. przede wszystkim strategii naśladownictwa i innowacji, wybierania gałęzi przemysłu, w które należy inwestować, polityki handlowej oraz wykorzystania subsydiów. W konkluzji stwierdza, że chociaż koncepcja *developmental state* uznawana jest za zjawisko historyczne, to zasady, którymi kierowały się państwa Azji Wschodniej w swojej polityce przemysłowej, nadal mogą być z powodzeniem stosowane w innych częściach świata.

Słowa kluczowe: rozwój gospodarczy, neoliberalizm, polityka przemysłowa, *developmental state*

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Abstract

In the times of discrediting neo-liberalism as the preferred guiding doctrine in economic policy and systemic arrangements, the industrial policy, understood as a set of state interventions to supervise the process of developmental advancements, may come back to the fore as a favoured instrument. It is the East Asian industrial policy which brought by far the most spectacular developmental results in the second half of the twentieth century. In the scholarly literature on the so-called East Asian miracle, this success is explained by the concept of the developmental state.

This paper examines the main threads of the East Asian industrial policy and tackles the issue of its contemporary applicability. It starts with the explanation as to why industrial policy as such is becoming more popular. It then examines the history of the formation of the concept of the developmental state. It analyses its most important elements, mainly, the strategy of imitating and innovating, the targeting of industrial sectors for development, the trade policy and the utilisation of subsidies. In conclusion, it is claimed that the provisions of the East Asian industrial policy may well be employed contemporarily, despite the fact that the concept of developmental state is primarily seen as a historical phenomenon.

Keywords: economic development, neoliberalism, industrial policy

The crisis and the alternative

Most of the very recent economics related literature deals with the causes and consequences of the global financial crisis 2008/2009¹. A financial crisis is, as it seems, an inevitable element of the socio-economic landscape of the contemporary world. Only in the last two decades there have been several, for example, the 1997 financial crisis, which extensively affected the economies of East Asia². However, the

¹ See, for example, *Financial Institutions and Markets: The Financial Crisis – An Early Retrospective*, eds. R.R. Bliss, G.G. Kaufman, Palgrave MacMillan, New York 2010; G. Cooper, *The Origin of Financial Crises: Central Banks, Credit Bubbles and the Efficient Market Fallacy*, Harriman House Ltd., Petersfield 2008; J.B. Foster, R.W. McChesney, *The Endless Crisis: How Monopoly-Finance Capital Produces Stagnation and Upheaval from the USA to China*, “Monthly Review Press”, New York 2012.

² See, for example, M. Goldstein, *The Asian Financial Crisis: Causes, Cures, and Systemic Implications*, “Policy Analyses in International Economics” 1998, Institute for International Economics, p. 55; S. Haggard, *The Political Economy of the Asian Financial Crisis*, eds. L.R. Klein, T. Shabbir, Institute for International Economics, Washington DC 2000; *Recent Financial Crises: Analyses, Challenges and Implications*, Edward Elgar Publishing, Cheltenham 2006.

recent financial crisis in some industrial nations, which became a global economic crisis³ dubbed the Great Recession⁴, has been particularly painful, to the extent that it has often been compared with the Great Depression of 1930. Various aspects and different stages of this crisis have been given attention in numerous analyses. In its extensive 650-page report entitled *Wall Street and the Financial Crisis: The Anatomy of a Financial Collapse*⁵, the US Senate cites regulatory failures as one of the reasons for the global economic crisis. A lack of regulation explicitly and inadequate state supervision implicitly are blamed for the havoc. Therefore, *The Stiglitz Report* suggests the restoration of the state as the appropriate regulator. It emphasises that ‘the crisis has exposed fundamental problems, not only in national regulatory systems affecting finance, competition and corporate governance, but also in the international institutions and arrangements created to ensure financial and economic stability’⁶. Many call for more explicit state interventionism. Scott states that ‘the essential lesson of the last 30 years is that self – regulation of capitalism is an ideological fig leaf that hides a superficial understanding of a system that requires the coercive powers of government to restrain the competitive urges of many of its leading players’⁷. Griffith-Jones *et al.* declare that it is time for “a visible hand” in the market⁸. Giddens calls outright for the return of some sort of planning⁹. Chang underlines that the ‘government needs to become bigger and more active’¹⁰, especially in developing countries, who are particularly disadvantaged, as far as the effects of economic crises are concerned.

This brings us to the question of possible development models, which would perhaps employ the above mentioned principles and could effectively contribute to the narrowing of the developmental gap between the high income economies and those underdeveloped countries who hold the ambition to catch up. As we witness the collapse of the neo-liberal doctrine as allegedly the universal panacea for

³ J.E. Stiglitz, *The Stiglitz Report: Reforming the International Monetary and Financial Systems in the Wake of the Global Crisis*, The New Press, New York–London 2010.

⁴ R.W. Kolb, *The Financial Crisis of Our Time*, Oxford University Press, New York 2011; G. Chacko, C.L. Evans, H. Gunawan, A. Sjoman, *The Global Economic System: How Liquidity Shocks Affect Financial Institutions and Lead to Economic Crises*, FT Press, New Jersey 2011.

⁵ C. Levin, T. Coburn, *Wall Street and the Financial Crisis: The Anatomy of a Financial Collapse*, Majority and Minority Staff Report, Permanent Subcommittee on Investigations, United States Senate, 13th April 2011.

⁶ J.E. Stiglitz, *op.cit.*, p. 1. See also: J.P. Joyce, *The IMF and Global Financial Crises: Phoenix Rising?*, Cambridge University Press, New York 2013.

⁷ B.R. Scott, *Capitalism: Its Origins and Evolution as a System of Governance*, Springer, New York 2011, p. 611.

⁸ *Time for A Visible Hand: Lessons from the 2008 World Financial Crisis*, eds. S. Griffith-Jones, J.A. Ocampo, J.E. Stiglitz, Oxford University Press, New York 2010.

⁹ A. Giddens, *The Politics of Climate Change*, Polity Press, Cambridge 2009.

¹⁰ H.-J. Chang, *23 Things They Don't Tell You About Capitalism*, Penguin Books, London 2010, p. 337.

persistent underdevelopment, inevitably, the concept of the developmental state (DS) is resurfacing as the historically most convincing empirical example.

The concept is widely believed to be the conceptual background of state policies and state institutional arrangements, leading to the unprecedented developmental achievements among the so-called late developers of the Asian continent. Countries such as Japan, Korea and Taiwan became developed nations within a short period of time in the second half of the twentieth century. Especially remarkable is the case of Korea, whose GDP per capita in the 1950s was comparable to some impoverished post-colonial states in sub-Saharan Africa and now it is a modern, high income economy. Nonetheless, the concept is often portrayed as only a historically justifiable phenomenon which cannot relate to contemporary conditions.

This paper thoroughly examines the principles of the developmental state. It starts with some historical background. It then proceeds with the examination of the perceptions concerning East Asian industrial policies. It subsequently analyses the DS concept by examining the industrial development through learning and innovating and through sectoral targeting. It also describes the trade-related policies and subsidies as financial sector-related interventions into the market. The examinations compare the two largest DS economies; Japan and (South) Korea, during their high growth periods¹¹. Finally, it considers the model's contemporary applicability.

The history

It is sometimes forgotten that the first meaningful criticism of Adam Smith's classical economy's theory of natural liberty did not come from Karl Marx. In the first half of the nineteenth century, a German economist Friedrich List in his study entitled *The National System of Political Economy* suggested that Smith's ideas would bring benefits to more affluent countries and leave the less developed vulnerable, thus increasing the inter-country developmental gap. His perception was influenced by Alexander Hamilton's American school¹², developed by the president of the United States, John Quincy Adams and senator Henry Clay into the American system – an economic plan to support the US domestic industries development by providing the necessary physical and financial infrastructure, as well as by protecting them from foreign competitors through tariff barriers. Hamilton, the first US Secretary

¹¹ In the case of Japan, the high growth period is believed to have taken place from the 1950s, until early 1980s. In the case of Korea, this is counted roughly from the mid-1960s until early 1990s.

¹² A. Hamilton, *The Revolutionary Writings of Alexander Hamilton*, Liberty Fund, Indianapolis 2008.

of Treasury, believed that those state interventions and protectionist measures are necessary for overall socio-economic development.

The second half of the nineteenth century was marked by the enforcement of the Listian political economy into the systemic arrangements in continental Western Europe and thus by creation of what perhaps can be seen as initial institutional fundamentals for what would later become a developmental state. Its origins can be traced from the institutional arrangements of Bismarck's Prussia and the Meiji restoration in Japan¹³. This model denied the capitalist class the dominant role in development, entrusting the guiding of the process of socio-economic development to the state. The state elite, supported by effective state bureaucracy, would guide the process of the industrialisation of national economies. It was consistent, to some extent, with the perception prevalent after the Great Depression until the late 1970s and motivated by the Keynesian theory, that the role of the state or the public sector is crucial in the developmental endeavour, especially among underdeveloped countries.

In the mid twentieth century, when Western countries, comprising predominantly of Western Europe and North America, distanced the rest of the world in terms of the level of development and continued to rely on what evolved from the model of capitalist development and the Prussian interventionist state, and, at the same time, Eastern Europe was coerced into adopting the state-command economic system, the so-called developing countries, many of which were emerging from colonialism, were in desperate need for a developmental model to enable significantly better developmental dynamics in order to establish a sound trajectory of "catching up".

By the end of the twentieth century, among the most successful late developers were those countries who became developmental states, i.e. South Korea, Taiwan and Singapore, as well as Japan – considered a prime example of the developmental state model, despite a rather "early" start to "late development".

The East Asian case

The concept of the developmental state is often believed to be the institutional explanation for the East Asian industrialisation. Ha-Joon Chang, however, points out that there is no unambiguous definition of the industrial policy (IP) and that the term is often used in reference to too narrow a spectrum of economic activity, namely, the state subsidies policy, or too broad a spectrum, namely, any economic

¹³ The Meiji restoration (1868–1912) was the process of significant changes in Japan's political, social and economic structures, which accelerated the country's industrialisation.

activity related to industry¹⁴. Indeed, Cimoli, Dosi and Stiglitz claim that industrial policy ‘comprises policies affecting “infant industry” support of various kinds, but also trade policies, science and technology policies, public procurement, policies affecting foreign direct investments, intellectual property rights, and the allocation of financial resources. [They conclude that] industrial policies, in this broad sense, come together with processes of “institutional engineering” shaping the very nature of the economic actors, the market mechanisms and rules under which they operate, and the boundaries between what is governed by market interactions, and what is not’¹⁵. Rodrik sees industrial policies as ‘policies that stimulate specific economic activities and promote structural change, thus, are not [exclusively] about industry *per se*’¹⁶. However, for Lindbeck those policies do not involve monetary and fiscal measures¹⁷. For Haggard (2004, p.64) industrial policies comprise ‘selective interventions designed to influence the allocation of resources among different activities’¹⁸. ‘When we talk about “industrial policy”, the majority of us do not mean any policy that affects industry [but] “selective industrial policy” or “targeting” – namely, a policy that deliberately favours particular industries over others, against market signals, usually to enhance efficiency and promote productivity growth’¹⁹. “Against market signals” is the cause of the debate between proponents and opponents of the applicability of industrial policy as a developmental tool, in other words, whether industrial policy actually matters. ‘The traditional *rationale* for selective industrial policy (i.e. policies intended to promote specific industries as against general policies to promote industrialisation) has been made in terms of “market failures” that arise when competitive markets either do not exist or are incomplete, in situations, for example, when there are information asymmetries, scale economies, or externalities’²⁰. Its opponents question the correlation between the policies and the dynamics

¹⁴ H.-J. Chang, *The Economic Theory of the Developmental State*, in: *The Developmental State*, ed. M. Woo-Cumings, Cornell University Press, Ithaca 1999, p. 182–199.

¹⁵ M. Cimoli, G. Dosi, J.E. Stiglitz, *The Political Economy of Capabilities Accumulation: The Past and Future of Policies for Industrial Development*, in: *Industrial Policy and Development: The Political Economy of Capabilities Accumulation*, eds. M. Cimoli et al., Oxford University Press, Oxford 2009, p. 1–2.

¹⁶ D. Rodrik, *Normalizing Industrial Policy*, Paper prepared for the Commission on Growth and Development, 2007, p. 3.

¹⁷ A. Lindbeck, *Industrial Policy as an Issue in the Economic Environment*, “World Economy” 1981, no. 4, p. 391–405.

¹⁸ S. Haggard, *Institutions and Growth in East Asia*, “Studies in Comparative International Development” 2004, no. 38 (4), p. 64.

¹⁹ H.-J. Chang, *Industrial Policy: Can We Go Beyond an Unproductive Confrontation?*, A Plenary Paper for ABCDE Annual World Bank Conference on Development Economics 2009, 22–24 June 2009, p. 2.

²⁰ I. ul Haque, *Rethinking Industrial Policy*, “UNCTAD Discussion Papers” 2007, no. 183, p. 3.

of economic growth²¹. Their objections concern the effectiveness of governments addressing the market imperfections and constructing adequate counter policies, and the governments' ability to eliminate rent seeking and corruption associated with industrial policy²². Its proponents claim that 'industrial policies [are] intrinsic fundamental ingredients of all development processes'²³, despite their shortcomings. Graham claims that industrial policy opponents misread the history and that industrial policy has always been present in some forms, even in the United States during Reagan's deregulation period²⁴.

There is a plethora of literature on industrial policy, its features, history and applicability. Initially, the justification for industrial policy would come from the perception that market forces are incapable of structural change of the economy necessary in the process of socio-economic development. 'Development is fundamentally about the structural change: it involves producing new goods with new technologies and transferring resources from traditional activities to new ones. [...] Poor countries remain poor because markets do not work as well as they could to foster the structural transformation that is needed'²⁵. Therefore 'there was broad consensus around the basic assumption that development required [a] non-marginal change that market forces alone could not generate'²⁶. Chang points out that the history of rapid development of currently affluent states is dotted with interventionist practices framed within the industrial policy, since the eighteenth century²⁷. However, a "neoclassical backlash"

²¹ See: P. Krugman, *Targeted Industrial Policy: Theory and Evidence*, "Industrial Change and Public Policy" 1983, Federal Reserve Bank of Kansas City, Kansas City; H. Pack, K. Saggi, *The Case for Industrial Policy: A Critical Survey*, "World Bank Policy Research Working Paper Series" 2006, no. 3839; J. Page, *The East Asian Miracle: Four Lessons for Development Policy*, "NBER Macroeconomics Annual" 1994, vol. 9, eds. S. Fischer, J.J. Rotemberg, MIT Press, p. 219–282; D.P. Quinn, R. Jacobson, *Industrial Policy through the Restriction of Capital Flows: A Test of Several Claims Made about Industrial Policy*, "American Journal of Political Science" 1989, no. 33 (3), p. 700–736; W.T. Woo, *The Changing Ingredients in Industrial Policy for Economic Growth*, Paper presented at the Asia-Pacific Research and Training Network (ARTNeT) Symposium *Towards a Return of Industrial Policy?* 2011, 25–26 July, ESCAP, Bangkok; World Bank, *The East Asian Miracle: Economic Growth and Public Policy*, World Bank, Washington DC 1993.

²² D. Rodrik, op.cit.

²³ M. Cimoli, G. Dosi, J.E. Stiglitz, op.cit. See also: A.H. Amsden, *Asia's Next Giant: South Korea and Late Industrialisation*, Oxford University Press, Oxford 1989; H.-J. Chang, *Kicking Away the Ladder. Development Strategy in Historical Perspective*, Anthem Press, London 2002; D. Rodrik, *Industrial Policy: Don't Ask Why, Ask How*, "Middle East Development Journal" 2008, no. 1(1), p. 1–29; R. Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialisation*, Princeton University Press, Princeton 1990; *Enlarging Europe: The Industrial Foundations of a New Political Reality*, eds. J. Zysman, A. Schwartz, University of California, Berkeley 1998; *American Industry in International Competition: Government Policies and Corporate Strategies*, eds. J. Zysman, L. Tyson, Cornell University Press, Ithaca–London 1983.

²⁴ O.L. Graham, *Losing Time: The Industrial Policy Debate*, Harvard University Press, Harvard 1992.

²⁵ D. Rodrik, *Normalizing...*, op.cit., p. 6–7.

²⁶ H. Shapiro, *Industrial Policy and Growth*, "DESA Working Paper" 2007, no. 53, p. 2.

²⁷ H.-J. Chang, *Industrial Policy: Can We Go...*, op.cit.

resulted in the industrial policy being questioned as to its developmental role, as its application was allegedly linked to poor economic performance. Although neo-liberal economic doctrine is in retreat, 'the context for the design of industrial policy has profoundly changed as a result of new rules governing international trade, the rise of global value chains and marketing networks, and other aspects of globalisation'²⁸.

Most of the recent scholarly literature on industrial policy is associated with the rapid development of East Asian states. Socio-economic regional advancements of Japan, Korea and Taiwan have been closely linked not merely in the context of wild-geese-flying pattern²⁹, but also due to the long-term political and economic interaction, particularly intense during the Japanese colonialism³⁰. As far as industrialisation is concerned, the East Asian states are often portrayed against Latin American countries, the latter believed to be the first developing nations to industrialise. The main difference between the two regions is usually framed within the debate on outward (i.e. export driven) and inward (i.e. domestic consumption driven) industrialisation in East Asia and Latin America, respectively. However, according to Chang, the East Asian type of industrial policy involves 'a lot more than handing out subsidies and providing trade protectionism (e.g., tariffs, import bans, quotas, domestic regulations at least partially intended to curb imports). According to him, industrial policy measures in East Asia included:

- coordination of complementary investments (the so-called Big Push) and competing investments through entry regulation, "investment cartels", and (in declining industries) negotiated capacity cuts;
- policies to ensure scale economies (e.g., licensing conditional upon production scale, emphasis on the infant industries starting to export from early on, state-mediated mergers and acquisitions);
- regulation on technology imports (e.g., screening for overly obsolete technologies, cap on technology licensing royalties), when the state acts as a venture capitalist and an incubator for high-tech firms;
- regulation on foreign direct investment (e.g., entry and ownership restrictions, local contents requirement, technology transfer requirements, export requirements);

²⁸ I. ul Haque, *Rethinking Industrial Policy*, "Discussion Papers United Nations Conference on Trade and Development" 2007, no. 183, p. 1.

²⁹ K. Akamatsu, *A Historical Pattern of Economic Growth in Developing Countries*, "Journal of Developing Economies" 1962, no. 1 (1), p. 3–25.

³⁰ B. Cumings, *The Origins and Development of the Northeast Asian Political Economy. Industrial Sectors, Product Cycles and Political Consequences*, "International Organization" 1984, no. 38 (1), p. 1–40; R.F. Doner, B.K. Ritchie, D. Slater, *Systemic Vulnerability and the Origins of Developmental States: North-east and Southeast Asia in Comparative Perspective*, "International 327 Organization" 2005, no. 59, p. 361; A. Kohli, *Where Do High Growth Political Economies Come From? The Japanese Lineage of Korea's, Developmental State*, "World Development" 1994, no. 22 (9), p. 1269–1293; R. Wade, op.cit.

- export promotion (e.g., export subsidies, export loan guarantees, marketing help from the state trading agency);
- government allocation of foreign exchanges, with top priority going to capital goods imports (especially for export industries) and the bottom priority to luxury consumption good imports³¹.

In his “classic” work on Japanese industrialisation, entitled *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925–1975*, Johnson distinguished two basic components of the industrial policy in Japan, corresponding to micro and macro aspects of the economy; the first – industrial rationalisation policy, and the second – industrial structure policy. ‘Industrial rationalisation means: (1) the rationalisation of enterprises, that is, the adoption of new techniques of production, investment in new equipment and facilities, quality control, cost reduction, adoption of new management techniques, and the perfection of managerial control; (2) the rationalisation of the environment of enterprises, including land and water transportation and industrial location; (3) the rationalisation of whole industries, meaning the creation of a framework for all enterprises in an industry in which each can compete fairly or in which they can cooperate in a cartel-like arrangement of mutual assistance; and (4) the rationalisation of the industrial structure itself in order to meet international competitive standards.’³² Industrial structure policy ‘concerns the proportions of agriculture, mining, manufacturing, and services in the nation’s total production; and within manufacturing it concerns the percentages of light and heavy and of labour-intensive and knowledge-intensive industries. The application of the policy comes in the government’s attempts to change these proportions in ways it deems advantageous to the nation. [...] The heart of the policy is the selection of the strategic industries to be developed or converted to other lines of work’³³. Kagami underlines that throughout the period of Japan’s rapid growth there were many IP definitions, which appeared in the scholarly literature, ranging from all MITI³⁴ activities, via most policies intervening into the national industry, to selective actions within certain industries³⁵. He focuses his IP analysis on market limitations as the main reason to implement industrial policies, and following Goto and Idre he divides them into: traditional and recently added market failures, and market imperfections. He pays

³¹ H.-J. Chang, *Industrial Policy: Can We Go...*, op.cit., p. 3.

³² Ch. Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925–1975*, Stanford University Press, Stanford 1982, p. 27.

³³ Ibidem, p. 28.

³⁴ The Ministry of International Trade and Industry of Japan (1949–2001) is considered to have been one of the most influential and powerful governmental agencies in the Japanese government structure.

³⁵ M. Kagami, *The Role of Industrial Policy: Japan’s Experience*, “Revista de Economia Política” 1995, no. 15(1), p. 119–133.

special attention to the economy of scale concept (internal and external) and to Marshallian externalities and start-up costs. The “internal” economies of scale concern the decreasing cost of production per unit with the increasing volume of production and with the accumulated knowledge of workers (so-called dynamic economies of scale). ‘The “external” economies of scale mean that the average production cost in related industries declines in proportion to a production expansion in the main industry’³⁶, for example, in the case of “network effects” or “Marshallian externalities”, when improvements in the main industry trigger improvements in related industries thanks to knowledge dissemination. Kim in his analysis of Korea considers industrial policy to be ‘all government policy measures that are aimed at promoting the development of [national] industry’³⁷. However, he distinguishes between those industrial promotional measures, which exert an economy-wide impact and those – industry-specific.

The general approach to industrialisation in developmental states is concerned, firstly, with import substitution industrialisation (ISI) and then, with export-oriented industrialisation (EOI). This industrialisation starts with import-substitution industrialisation, where a state gradually replaces imported goods with domestically manufactured products. According to Haggard, ‘ISI may occur “naturally” as the result of balance-of-payments problems, supply interruptions associated with wars or growth of the domestic market. ISI is advanced, however, by policies to manage balance-of-payments crises, particularly trade and exchange controls, and by explicit industrial policies designed to raise the rate of return to manufacturing’³⁸. Haggard distinguishes three phases of ISI. ‘In the first stage, the state earnings come from primary-product exports and the foreign borrowing finance the imports of selected producer goods. These imports provide the foundation for local manufacturing’³⁹. In its second stage, the dependency on raw material and food exports as well as on foreign borrowing is maintained, ‘since investment in new industrial capacity increases the demand for imported capital and intermediate goods’⁴⁰. The third phase is characterised by the supplementing of import substitution with the expansion of manufactured exports. Thus, ISI gradually moves towards export-oriented industrialisation or EOI. The EOI would create a structural relation of a developmental state with the world economy⁴¹, in which the world economy would become the market for the national production,

³⁶ Ibidem, p. 121.

³⁷ K.S. Kim, *Industrial Policy and Industrialization in South Korea: 1961–1982 – Lessons on Industrial Policies for Other Developing Countries*, “Kellogg Institute Working Paper” 1985, no. 39, p. 16.

³⁸ S. Haggard, *Pathways from the Periphery*, Cornell University Press, Ithaca 1990, p. 26.

³⁹ Ibidem, p. 25–26.

⁴⁰ Ibidem, p. 26.

⁴¹ Ibidem.

excessive to the domestic consumption capacities. Another important DS policy aspect concerns industrial upgrading, i.e. a gradual and continuous change of the assortment of industrial production towards higher sophistication and technological advancement. According to Bernard and Ravenhill industrial upgrading was the key issue for East Asian developmental states⁴².

Learning and innovating

The initial phase of industrialisation ‘has come about as a process of learning rather than of generation of inventions and innovations’⁴³, as the late developers were in the position to “borrow” existing technologies⁴⁴. Therefore, the industrial targeting would need to be primarily focused on those industries, who would contribute to the broad strategy of the overall catching up, rather than single out exclusively sectors associated with advanced technologies. These industries would usually possess the potential of their products becoming widely desirable on the international market.

In practice, preferential treatment of what would be adequately technologically-advanced production became an important feature of the East Asian industrial policy and indigenous innovation has been a vital element of the East Asian developmental model. Adequate levels of innovation would be achieved via investment in R&D and/or import of technologies. The quality of R&D could be achieved through the attraction of foreign specialists and experts, as well as foreign technologies, in the short term, whereas long-term effects would be achieved via the creation of a local intellectual base composed of scientists and engineers. This would necessitate a constant nurturing of human capital formation via the expansion of the training base/facilities.

Although Japan is considered to belong to the “late developers” group, hence the initial process of innovation would suggest an importation and duplication of technologies, Japan’s rather early developmental start in the late developers group, as well as a general lack of a generic Asian policy of major FDI attraction, suggest that throughout the high growth period Japan, to some important extent, relied on its own R&D. Indeed, already at the beginning of the twentieth century, Japan’s expansion in cotton textile production was attributed to the utilisation of new technologies and adequate managerial coordination based on indigenous experiences and patterns. Mass

⁴² M. Bernard, J. Ravenhill, *Beyond Product Cycles and Flying Geese: Regionalization, Hierarchy, and the Industrialization of East Asia*, “World Politics” 1995, no. 47 (2), p. 171–209.

⁴³ A.H. Amsden, op.cit., p. 4.

⁴⁴ A. Gerschenkron, *Economic Backwardness in Historical Perspective*, The Belknap Press of Harvard University Press, Cambridge 1962.

and Miyajima point to the establishment of experimental industrial laboratories aimed initially at developing new technologies in the textile industries, as far as dyeing of material is concerned, as an example of R&D orientation⁴⁵. This policy, as well as the earlier efforts of the Meiji's administration focused on the development of educational base resulted in a very high position of Japan in ranking of the Human Capital Index even among developed nations. The subsequent "targeting" of industries for development took into consideration the advantages of becoming innovative; hence offering technologically more advanced products. This is not to say that Japan refrained itself from importing necessary technologies. On the contrary, the American companies were especially targeted for the transfer of technology. Initially, 'Japan imported [...] technology for its basic and high-growth industries, and imported the greater proportion of this technology from the United States'⁴⁶. The government was in charge of technology transfers and no technology would enter the country without MITI's approval. Based on Foreign Capital and Foreign Exchange Control Law, 'the Japanese government allocated its scarce foreign currency selectively to those firms capable of adapting and improving import technology, in order to encourage the importation of advanced technology and to promote a domestic technology base'⁴⁷. Subsequently, 'technological development was supported by direct and indirect production and R&D subsidies, the encouragement of multifirm research consortia, the discouragement of foreign direct investment in sectors in which it was technologically feasible for Japan to enter'⁴⁸. The proof of a strong R&D base was delivered during the early 1970s when Japan commenced reorganisation of its industrial sector towards future promising branches such as computer industry and electronics. As a result, by late 1970s, Japan became the world leader in semiconductor technology, following the MITI's vision of "technology-based nation".

Korea found itself in favourable conditions as far as the process of learning and innovating is concerned. In the early twentieth century, the state was seen by its coloniser – Japan as an important supply base for further Japanese expansion in Asia, hence the development of the country was viewed by the Japanese as crucial. This is why Korea's rapid and extensive industrialisation commenced under the Japanese rule. The first

⁴⁵ W. Mass, H. Miyajima, *The Organization of the Developmental State: Fostering Private Capabilities and the Roots of the Japanese "Miracle"*, "Business and Economic History" 1993, no. 22 (1), p. 151–168.

⁴⁶ Ch. Johnson, op.cit., p. 16.

⁴⁷ M. Sakakibara, D.-S. Cho, *Cooperative R&D in Japan and Korea: A Comparison of Industrial Policy, "Research Policy"* 2002, no. 31 (5), p. 678.

⁴⁸ M. Noland, *From Industrial Policy to Innovation Policy: Japan's Pursuit of Competitive Advantage*, "Asian Economic Policy Review" 2007, no. 2, p. 255.

Korean companies⁴⁹ derived their innovation from imitating the Japanese firms and from heavily relying on transfer of technology from Japan. During the high growth period of the 1960s and 1970s, Korea continued to rely on foreign technologies for its industries, partly benefiting from the US overall assistance. Nevertheless, in the early 1980s the government commenced the reorganisation of development trajectory into knowledge- and information-intensive industries, in which local R&D would play a crucial role. By Cho *et al.* this period is called “creative knowledge intensive era”⁵⁰. The alleged initial low position in rankings on the Human Capital Index resulted in Korea’s government paying more attention to the education of scientists and engineers. Chun points out that science-profiled high schools were for that reason supervised by the Ministry of Commerce, Industry and Energy and not by the Ministry of Education⁵¹. As early as in the 1960s, the government established the Korea Institute of Science and Technology responsible for developing industrial technology and the Korea Development Institute for conducting research on development policy. Foreign specialists were continuously attracted via income and career-development incentives. Korea became a good example of effective human capital accumulation.

The targeting

Certain industrial sectors were deliberately targeted by the state for development, due to their real or potential value for the national economy. During the high growth period, Japanese government’s targeting encompassed various sectors. In the early days, the priority was given to production of coal, iron and steel, as a part of the “priority production programme”. It should be seen as the continuation of the pre-war heavy industry development focused then on the military equipment, which would accompany the expansion of textile production from the late nineteenth century. Later, the focus also included electric power building and shipbuilding, as well as petrochemicals to produce synthetic fibre and chemical fertiliser, among others. According to Cumings, this assortment of targeting represented the second phase

⁴⁹ The companies set up in Korea were initially the Japanese *zaibatsu* such as Mitsui and Mitsubishi. Both companies became *keiretsu* after world war two. See: R. Morck, M. Nakamura, *The History of Corporate Ownership in Japan*, “ECGI Working Paper Series in Finance” 2003, no. 20.

⁵⁰ D.-S. Cho, D.-H. Lee, S.-J. Ryu, D.-W. Cho, D.-J. Kim, *Comparative Study of Korean and Japanese Industrial Policies Through Content Analysis of Official Documents*, “Hitotsubashi Journal of Commerce and Management” 1996, no. 31 (1), p. 59–74.

⁵¹ See: S.-H. Chun, *Economic Development, and Tax Policy and Tax System in Korea*, “Research Paper”, Korea Institute of Public Finance, Seoul 2002. For the analysis of the importance of the R&D during Korea’s industrialisation, see: A.H. Amsden, *op.cit.*

of Japan's industrialisation, which commenced in the 1930s and was completed by the mid-1960s⁵². The late 1940s efforts were mainly focused on reconstruction of pre-war industrial sectors, whereas the theme of the 1950s industrialisation became the industrial catching-up. A similar recovery after the Korean war determined the initial targeting policies of the South Korean government, which included cement and glass as well as refined oil products. Nevertheless, attention was directed shortly afterwards towards light industry.

In the 1960s, the Japanese government continued promoting heavy as well as chemical industries (HCI). Heavy industry remained strategic at least until 1970.⁵³ However, more focus was directed towards machinery and automobile industry. Although the Korean government also started paying more attention to heavy and chemical industries, as a potential export orientated production, nevertheless, the production was dominated by the light industry, including textiles.

In the 1970s the Japanese targeting focused on machine productions and electronic industries, including computer industry. Undoubtedly, it was partly caused by the 1973 oil shock, as a result of which a number of energy-intensive industries such as aluminium, chemicals, and steel, found themselves in decline. Despite that, in 1973 Park Chung Hee announced its strategy of heavy-chemical industrialisation in Korea⁵⁴. HCI became a priority sector. As much as in Japan during the 1950s, the production of iron, steel, petrochemicals and non-ferrous metals became strategically important. The government also promoted the construction of shipyards.

From the late 1970s, high-tech products became the main target for the Japanese government's preferential treatment and the governmental support for R&D increased. In the late 1970s the Koreans accelerated the development of heavy and chemical industries, with the emphasis on industrial machinery, steel and electric equipment, whereas in the 1980s, similar to Japan, redirected its attention to knowledge- and information-intensive industries. The change from labour intensive to knowledge intensive industries in both cases was also dictated by the rapidly increasing cost of labour. Needless to say, the targeting of industries was consequently reflected in the assortments of export goods.

⁵² B. Cumings, op.cit., p. 2.

⁵³ Y. Kobayashi, *The Role and Significance of Japanese Industrial Policy: Its Estimation and Recent Issue*, "Economic Journal of Hokkaido University" 1993, no. 22, p. 81.

⁵⁴ J.-G. Jeon, *Exploring the Three Varieties of East Asia's State-Guided Development Model: Korea, Singapore, and Taiwan*, "Studies in Comparative International Development" 1995, no. 30(3), p. 74.

The trade policy

All the East Asian fast developers prove that export was an important drive behind the fast socio-economic development. The trade policy would involve the establishment of barriers for import and incentives for export. The import substitution industrialisation (ISI) would include import barriers. Export orientated industrialisation (EOI) would involve export promotion. In Japan, the strategy was already present in the years 1914–1938, when the state became a world leading textile exporter. The cartelisation process was accompanied by increased import tariffs and anti-dumping laws. After world war two, Japan followed a similar path. Up until 1975 it was domestic consumption, and thus ISI, which drove its economic growth. All international trade was under government's direct control (until the early 1950s). Later, two factors caused the steady climb of average trade tariffs rate, namely; gradual reduction of tariff exemption for machinery and the increase in tariffs on food imports. For example, sugar customs duties hiked from 15% in 1951 to 100% in 1959⁵⁵. Import substitution production was additionally enhanced via the exercising of strict control over import, mostly via quota systems, where in the 1960s almost 500 types of goods were under the import quota system, including steel products (as early as in 1950). Economic liberalisation moved Japan closer to an EOI pattern. However, this liberalisation focused on eliminating quota-style quantitative restrictions, whereas tariffs continued to be important tools in restraining imports. The agreements brokered during the GATT's Kennedy Round (1964–1967) effected a gradual decrease in Japanese tariffs from the late 1960s. In the early 1970s, the government implemented a number of effective tariff reductions on mining and manufacturing products, as well as on agricultural goods. In the late 1970s, the measures to prevent import and promote export were gradually eliminated, whereas in the early 1980s the policy of import promotion took place, in order to balance the Japanese trade surplus.

'Until the late 1950s, Korea was a typical inward-orientated economy'⁵⁶. Soon after the Park Chung Hee took over power, the EOI became the dominant focus. The government introduced various export incentives. Nevertheless, export, was closely monitored, to the extent that the decisions on the product type, the exporter and the targeted market were greatly influenced by the state administration. Moreover,

⁵⁵ I. Yamazawa, *Trade Policy and Changes in Japan's Trade Structure – With Special Reference to Labour-Intensive Manufactures*, "The Developing Economies" 1975, no. 386.

⁵⁶ Ch.-H. Nam, *The Role of Trade and Exchange Rate Policy in Korea's Growth*, in: *Growth Theories in Light of the East Asian Experience*, eds. T. Ito, A. Krueger, University of Chicago Press, Chicago 1995, p. 154.

the 'Ministry of Commerce and Industry set annual export targets for officials connected with export administration'⁵⁷. At the same time, protection of the domestic market played an important role. The government tightened import control, while the general import tariffs rose to 40%. The tariffs diversification and tariffs exemptions allowed the government to steer the inflow of goods and capital. For example, intermediate goods for export production and some capital goods for special uses or specific industries were imported duty free. Imposed import quotas were awarded to companies proportionally, according to their export volume (the export-import link). Although the first attempts at import liberalisation took place already in the late 1960 s, the effective policy took shape in the 1980 s.

The subsidies

To nurture the development of certain industries, as well as to boost export, the state policy would involve the direct and indirect channelling of financial assistance via banks or state institutions in the form of credit subsidies and other subsidies, regulatory actions such as domestic tax policies and price control mechanisms, as well as monetary policies such as the manipulation of interest rates and exchange rates. All those policies are sometimes classified as subsidies related.

Banks have realised a policy of indirect subsidies offering preferential rate loans for designated sectors and designated enterprises. These were usually described as policy loans or subsidised general loans. The mechanism was based on subsidised interest rates, and the market distortion in Korea became so significant that export loans had negative real interest rates. Woo distinguished three ways of generating policy loans in Korea – from the banking system, the fiscal-type taken out of the state budget, and from the National Investment Fund (since 1973)⁵⁸. In the 1970 s policy loans accounted for over 40% of domestic credit. Preferential loans were initially granted for the textile industries and later – for export and all the HCI sectors, including transport infrastructure, energy and defence. In Japan, 'capital channelling to preferred sectors was implemented through direct subsidies, indirect subsidies through state-owned or dominated banks, and preferential tax breaks such as accelerated depreciation on investment'⁵⁹. Policy loans mostly benefited the targeted industries – iron and steel production, electric power and shipbuilding. A direct

⁵⁷ K.S. Kim, *op.cit.*, p. 30.

⁵⁸ J.-E. Woo, *Race to the Swift: The Role of Finance in Korean Industrialization*, Columbia University Press, New York 1991.

⁵⁹ M. Noland, *op.cit.*, p. 255.

credit allocation to selected industries on concessional terms was supplemented by governmental direct subsidies.

Direct subsidies featured already in Japan for the designated textile production industry. The Japanese government used the Fiscal Investment and Loan Programme in the endeavour of selective investment in targeted sectors and enterprises, whereas in Korea this role was fulfilled by the National Investment Fund. In Japan, the initial purpose of the direct allocation of foreign reserves was to purchase foreign technologies. It is important to emphasise that the preferential policy of direct and indirect subsidies was not only directed at targeted industries, but also – at particular enterprises. In Korea, especially during the HCI targeting, the subsidies were given to certain enterprises, who managed to gain favour from Park Chung Hee.

These subsidies also took the form of various tax subsidies. In general, tax policies, meaning favourable treatment for certain activities, i.e. lower taxes, tax deductions, tax exemptions and special depreciation for tax purposes, were all used towards targeted sectors and enterprises in the case of Japan and Korea. In the 1950s the Japanese government introduced various tax incentive policies for industrial development, as well as export development, namely, special depreciation (1951), import tax exemption for import of machinery (1952), export-import link tax reduction (1953). The fiscal policies served to attract modern technology. “Inclined taxation system” provided generous corporate tax exemption arrangements in purchasing specific types of machinery and equipment, and accelerated the introduction of foreign technologies⁶⁰. In Korea, ‘the 1961 Tax Exemption and Reduction Control Law began to provide export firms with tax deduction measures’⁶¹. The subsequent policies focused on tax exemptions and tax deductions, as well as accelerated tax depreciation on profits from export activities, in targeted HCI such as steel, chemical, shipbuilding and machinery, and eventually in 1982 – on R&D related activities⁶².

⁶⁰ F. Kimura, *Japan's Model of Economic Development: Relevant and Nonrelevant Elements for Developing Economies*, “WIDER Working Paper” 2009, no. 22.

⁶¹ J.S. Mah, *Export Promotion Policies, Export Composition and Economic Development of Korea*, Paper prepared for the Law and Development Institute Inaugural Conference, Sydney 2010, p. 8.

⁶² See: S. Haggard, R.N. Cooper, S. Collins, Ch. Kim, S.-T. Ro, *Macroeconomic Policy and Adjustment in Korea, 1970–1990*, “Harvard Studies in International Development”, Harvard Institute for International Development, Harvard University Press, Cambridge 1994; Ch.-H. Nam, op.cit.

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The contemporary applicability?

The above analysis leads us to the question of possible scenarios as far as the contemporary applicability of the concept of the developmental state is concerned. Is there space for it to be applied in the times of globalisation? Can any state benefit from it? How far can state intervention go? The concept is often seen as merely a historical phenomenon, which brought extensive developmental achievements in very specific exogenic and endogenic conditions. It would thus be naïve to believe that all its provisions can be transplanted into systemic arrangements of underdeveloped countries contemporarily. However, there are undoubtedly some lessons to be learned.

The question of DS contemporary applicability is inevitably connected with the discussion on the positioning of the state and state interventionism in the times of globalisation. The gradual disappearance of regulatory barriers in economic interactions between the states, the regions and the economic sectors seems to be advancing. However, some barriers disappear, but in their place new mechanisms of protection are created. It is a popular opinion that the new rules favour strong entities within the global economy and marginalise the weak ones, including developing countries. Consequently, the dismissal of a scenario in which the role of the state will still be crucial, upon the conviction that a one borderless global economy is rapidly emerging, seems premature. On the contrary, the role of the state will most likely remain extremely important to fend the national interests, as the 2008/2009 financial crisis clearly illustrates, allowing space for the possible utilisation of the provisions of the DS model.

The actual process of globalisation has left many nations and a plethora of social groups dissatisfied. The development-related disparities are increasing. Although some manage to accumulate significant wealth, the majority remains only marginally better off. Again, this is because 'a more aggressively enforced internationalisation of the global economy, [has been] built around rules that work primarily to the benefit of current holders of financial capital'⁶³. In this situation, only states are believed to offer adequate political resources to avert and redirect the process to make it more socially equitable, and the nations seem prone to turn towards interventionist practices to achieve better developmental dynamics.

⁶³ P. Evans, *Transferable Lessons? Re-Examining the Institutional Prerequisites of East Asian Economic Policies*, "Journal of Development Studies" 1998, no. 34(6), p. 82.

Naturally, globalisation, understood as a multilevel integration of national and regional economies and as a growth of interdependence of various socio-economic processes worldwide, will most likely continue in one form or another and the pressure of the external economic environment to influence the processes internally, will continue to take place. This is what constitutes the predicament of “late-late” development, as described by Beeson⁶⁴. Therefore, state needs to play an important role in poor countries, who require better developmental dynamics, by attempting to benefit from international conditionality (e.g. from trade liberalisation, from easier technology diffusion) and by resisting external threats (such as attempts by foreign economic agents/actors to overtake certain domestic industrial sectors in order to eliminate possible competition).

Moreover, in view of relatively recent East Asian economic achievements and the lack thereof in other regions, the necessity for creating developmental states cannot be easily dismissed. In reality, we are clearly observing DS features being more prominent in contemporary policy making. The governments are becoming less shy to speak about interventionism and regulation to nurture development. Even places considered to be the bastions of the neo-liberalism thought implementation seem to be giving in. International organisations such as the OECD have begun admitting the successes of the developmental state model.

Institutional arrangements enabling state-guided development, policy solutions focusing on industrial development and a selective engagement with the global economy and state ideology defending national economic interests can all, in one way or another, be considered for a broader audience. The process of rejection of neo-liberalism is accompanied by an increase in the interest in a variation of the DS arrangements in other continents than Asia. It is interesting to see how the DS model becomes more prominent in Africa. The continent is seen as the new high growth region, with challenges similar to those faced earlier by East Asian economies, mostly related to a large incidence of poverty. It is then by all means natural that the discussion on adequate development models therein also includes that which brought the biggest successes in the second half of the twentieth century. The idea of constructing an African developmental state has floated around at least since the 1990s⁶⁵ and is indeed believed to have peaked in the twenty first century. Due to its authoritarian political arrangements and high growth, Ethiopia is often mentioned

⁶⁴ M. Beeson, *The Rise and Fall (?) of the Developmental State: The Vicissitudes and Implications of East Asian Interventionism*, in: *Developmental States: Relevancy Redundancy or Reconfiguration?*, ed. L. Low, Nova Science Publishers, New York 2004.

⁶⁵ T. Mkandawire, *Thinking about Developmental States in Africa*, “Cambridge Journal of Economics” 2001, no. 25 (3), p. 289–313.

as a possible example⁶⁶. However, as many countries on the continent have been undergoing democratisation processes, the African developmental state has been connected with the constructing of a democratic developmental state⁶⁷.

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⁶⁶ A. Kefale, *Narratives of Developmentalism and Development in Ethiopia: Some Preliminary Explorations*, Paper submitted for the 4th European Conference on African Studies, Uppsala, 15–18 June 2011; A. Desta, *Emerging Challenges in Democratic Developmental State: The Case of Ethiopian Growth and Transformation*.

⁶⁷ O. Edigheji, *A Democratic Developmental State in Africa?*, "A Concept Paper, Research Report" 2005, no. 105, Centre for Policy Studies; K. Olayode, *Reinventing the African State: Issues and Challenges for Building a Developmental State*, "African Journal of International Affairs" 2005, no. 8(1–2), p. 23–43.

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